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Cite as: AIP Conference Proceedings **2138**, 020006 (2019); <https://doi.org/10.1063/1.5121037>  
Published Online: 21 August 2019

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# A Study on Factors Influencing Student Loyalty Towards Higher Learning Institution

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**Abstract.** Student loyalty is referred as student willingness to provide positive appraise about their institution and give good recommendation to other people such as friends, family, employers, and organizations. It is an important issue for university authorities in working on long-term strategic planning. In order to ensure student loyalty towards university, their planning should include strategies on providing the best services despite budget constraints, student accommodation placement, competition with other universities and lack of student enrolment. Previous studies have revealed that student loyalty is affected by various factors namely student satisfaction, student trust, service quality and university image. Typically, these factors are inter-correlated with each other. Hence, statistical method such as multiple linear regression which frequently used method in this type of study is inappropriate since it is very susceptible to inter-correlation between variables. The Partial Least Square (PLS) modelling is more suitable for constructing predictive model in the situation. The results indicate that students' choices on university may highly depend on the services provided by university and the university image. It also shows that the most important service quality that students emphasize is on instructor quality and social environment. Since university image also one of the significant factors that influences student loyalty, it is crucial for university to retain a good reputation in the public by providing good value of money.

## INTRODUCTION

Currently, there are more than 590 colleges and universities in Malaysia [1]. With such large number of institutions, the competition situation among higher learning institutions has becoming highly obvious when recruiting students at the higher educational level. Hence, the institution authorities should come out with a strategy not to only attract prospective students, but also retain the current students by building a bond of trust between both parties so that students will feel safe and well supported. This kind of relationship will lead to student satisfaction and eventually the students give a good and positive appraise about their university to other persons as well as choosing the same university if they decided to continue pursue higher degree in the future. Thus, the insight concerning factors that influence student satisfaction and loyalty is the most important key for determining the most appropriate strategic management in order to ensure long term successful performance for both public and private institutions.

Student loyalty can be referred as the willingness of student giving a good and positive appraise about their university to other people such as friends, family, employers, and organizations [2]. It is desired by many institutions since a loyal student might continue to support the institution even after graduation through word of mouth promotion to other prospective, current, or former students, as well as financial sponsorship of any event organized by the institution [3].

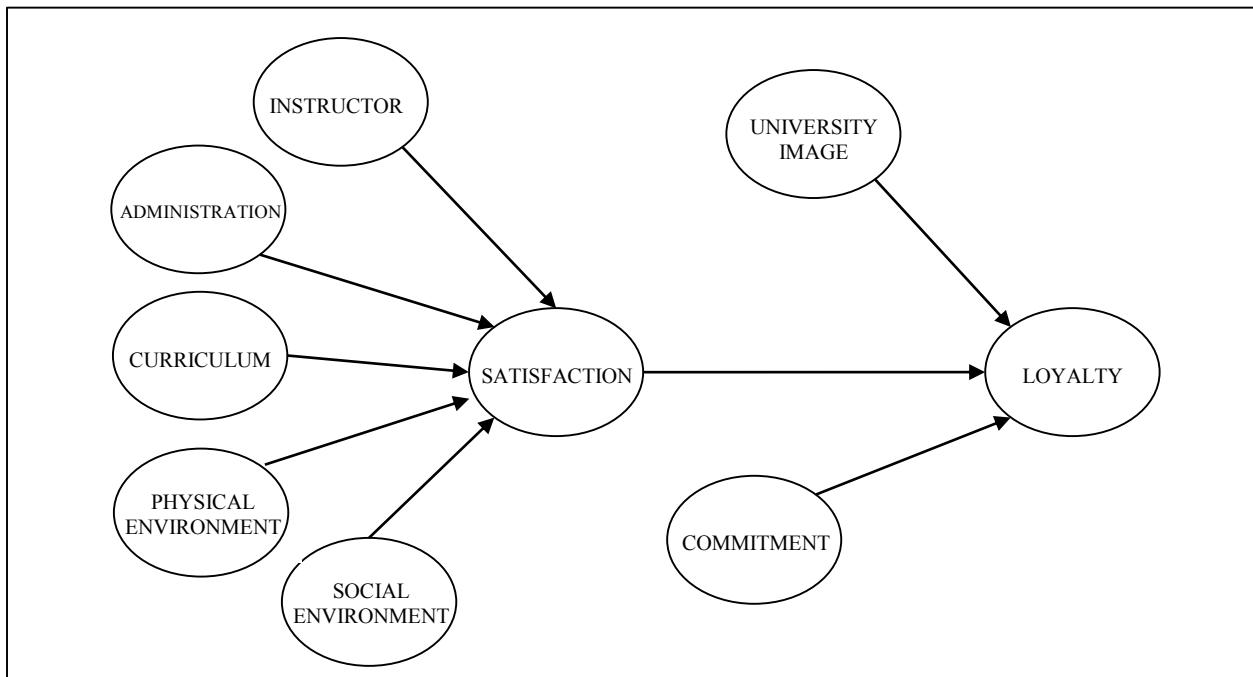
Based on the previous research done by other researchers, there are many factors that will affect student loyalty towards the university. [4] states that service quality, facilities, images of study programme, image of university colleges, and satisfaction are the drivers of student loyalty in Norwegian university. [5] investigated the effect of service quality, student satisfaction and university image on student loyalty in Nigeria. While another research done by [2] suggested that the factors that affected student loyalty were satisfaction, university image, trust and perceived value.

However, all these factors or variables are highly inter correlated with each other. Hence, statistical method such as multiple linear regression which frequently used method in this kind of studies is inappropriate since it is very susceptible to inter-correlation between variables. It also has a stringent requirement for observations where to ensure the statistical validity for a small number of observations, some variables should be eliminated which could lead to inaccurate results.

Hence, this study aims to develop a student loyalty model using partial least square path modelling. The rest of this article is arranged as follows; Section 2 briefly discuss the methodology used in this study, results and discussions are reported Section 3, and our conclusions are provided in Section 4.

## METHODOLOGY

The data for this study were collected through a survey with a modified questionnaire from [6, 7]. It consists of four sections which are demographic information of respondent; loyalty and satisfaction towards university; perception on university's service quality in terms of instructor, administration, curriculum, physical environment and social environment; perception on university image; and perception on commitment to university. The questions in the first section were measured using nominal scale, while other sections were measured by interval scale, starting from 1 (strongly disagree) to 7 (strongly agree). The sample for this study consists of graduates from one of the public universities at north Malaysia. Cluster sampling technique was employed to select the respondents during their convocation ceremony. The constructs in the questionnaire were used as variables to develop our proposed student loyalty path model as shown in Figure 1. The path model consists of eight independent variables and two dependent variables where student satisfaction is independent of student loyalty and dependent on instructor, administration, curriculum, physical and social environment.



**FIGURE 1.** Proposed Student Loyalty Path Model

A partial least square (PLS) path model is a multivariate data analysis model which used to create models of variables and able to test the relationships between each variable in a single model. It is a method for constructing predictive models when the factors are many and highly collinear [8]. This study used a SmartPLS software to test the relationship between variables in Figure 1 and to create the path model. The significance of parameter estimates of PLS are assessed using the bootstrap method within the SmartPLS software. The assumption of discriminant validity in PLS model was measured using the square root of average variance extracted (AVE) of each variable where the

value should be greater than the correlations among the variables. Additionally, the  $R^2$  of the dependent variables will indicate the quality or ability of the predictive path model. According to [9], the  $R^2$  value of 0.25, 0.50 or 0.75 for dependent variable in structural model can be described as weak, moderate or substantial ability in prediction.

## RESULTS AND DISCUSSION

A total of 469 graduates have responded to our questionnaires. It was found that 30.5% of them are male respondents and 69.5% are female respondents. Majority of them are Malays (67.4%), followed by Chinese (24.1%), Indian (6.0%) and the rest are other Malaysian races as well as foreigners with similar percentages (1.3%). Table 1 shows the mean and standard deviation of response for each variable, the average variance extracted to indicate the discriminant validity, and the correlation between variables.

**TABLE 1.** Mean response, standard deviation, square root of average variance extracted (AVE) and correlations

Variables	Mean	SD	1	2	3	4	5	6	7	8	9
1. Loyalty	6.00	0.96	<u>0.88</u>								
2. Satisfaction	5.99	0.93	0.87	<u>0.87</u>							
3. Commitment	6.13	0.93	0.79	0.83	<u>0.91</u>						
4. University Image	5.88	0.94	0.77	0.80	0.74	<u>0.87</u>					
5. Instructor	5.86	0.89	0.62	0.65	0.60	0.70	<u>0.89</u>				
6. Administration	5.39	1.14	0.52	0.55	0.48	0.64	0.59	<u>0.90</u>			
7. Curriculum	5.80	0.97	0.57	0.58	0.53	0.65	0.69	0.61	<u>0.89</u>		
8. Physical Environment	5.81	0.97	0.59	0.64	0.54	0.69	0.61	0.59	0.54	<u>0.90</u>	
9. Social Environment	6.09	0.87	0.61	0.67	0.61	0.66	0.64	0.48	0.61	0.66	<u>0.91</u>

SD – standard deviation, square root AVE values are shown in diagonal and underlined.

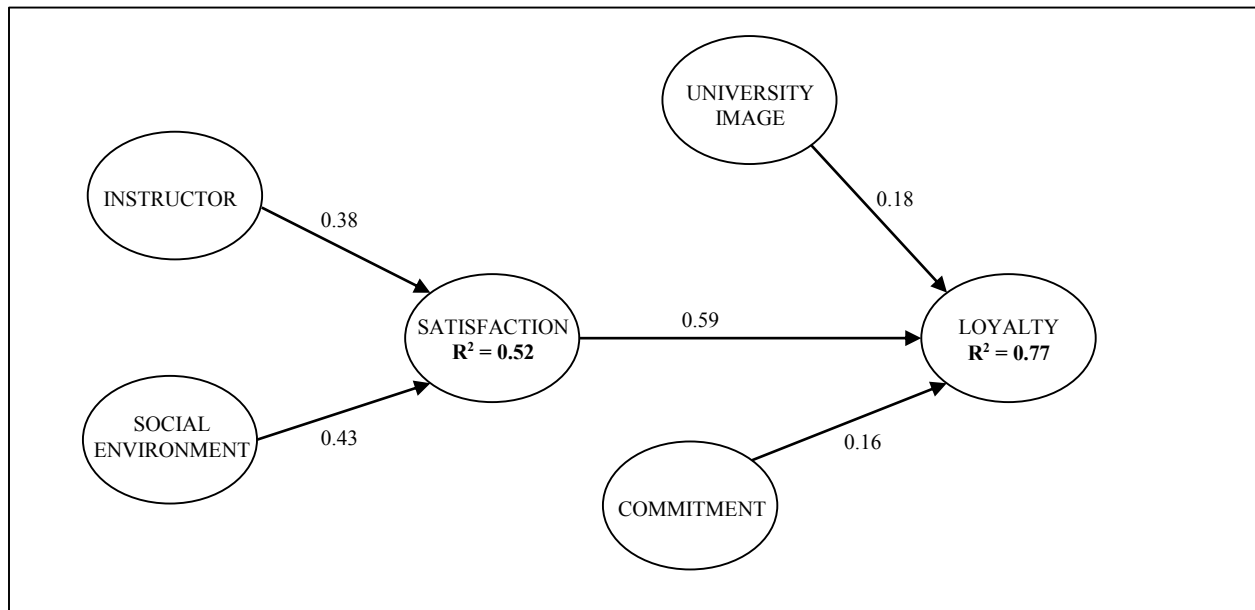
The mean response shown in Table 1 is the average of responses for each variable which scale 1 represents ‘strongly disagree’ to scale 7 for ‘strongly agree’. Since all the mean response values are greater than 5 and close to 7, then these results indicated that on average, the respondents are quite strongly agreed with the items in the questionnaire. It can also be seen that the correlation among the variables as shown in the off-diagonals from column 1 to column 9 are moderately high which suggesting that PLS model is suitable in developing the predictive model while assessing the relationship between the dependent and independent variables. In addition, the PLS model assumption for discriminant validity showed the square root of AVE values are greater than the corresponding off-diagonal elements. correlation between it and other variables. Hence, the PLS path model was analyzed and the results are shown in Table 2.

**TABLE 2.** Results of path model analysis

Paths	Path coefficients	t-statistics
Satisfaction → Loyalty	0.59	10.02***
Commitment → Loyalty	0.16	2.7***
University Image → Loyalty	0.18	3.68***
Instructor → Satisfaction	0.17	2.76***
Administration → Satisfaction	0.08	1.60
Curriculum → Satisfaction	0.03	0.73
Physical Environment → Satisfaction	0.10	1.77
Social Environment → Satisfaction	0.24	4.55***

\*\*\* Significant at 0.01

Based on the results, three paths for student satisfaction model were not significant since the *t*-statistics were less than 2.09. The insignificant paths are path from administration (*t*-stat = 1.60), curriculum (*t*-stat = 0.73) and physical environment (*t*-stat = 1.77). Thus, the PLS model was re-developed by reducing the insignificant path. The reduced student loyalty path model is shown in Figure 2. Both paths from quality of instructor and social environment to student satisfaction were statistically significant at 1% with coefficient 0.38 and 0.43, respectively. The  $R^2$  value for satisfaction path model is 0.52 which can be considered as moderate predictive ability. Meanwhile, the student loyalty path model showed a high predictive ability with  $R^2$  value is 0.77. All the paths from student satisfaction, commitment and university image to student loyalty were found to be positive and statistically significant (coefficient = 0.59, *p*-value = <0.001; coefficient = 0.16, *p*-value = 0.004; coefficient = 0.18, *p*-value = 0.001; respectively).



**FIGURE 2.** Student Loyalty Path Model

## CONCLUSION

This study sought to understand factors that influence student loyalty towards higher learning institution in Malaysia particularly. Based on the results from one of the public universities at north Malaysia, the main factors are the image of university, commitment and student satisfaction. The findings also indicated that the most important service quality that students emphasizes is on instructor quality and social environment. With these factors, satisfaction of student becomes the mediator effect for student loyalty towards higher learning institution.

## ACKNOWLEDGMENTS

This study is funded by Universiti Utara Malaysia under the University Research Grant (S/O Code: 13877). The authors also grateful to two anonymous reviewers for their comments on an earlier version of the manuscript.

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